Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

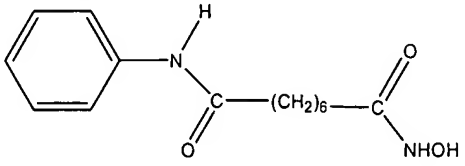
Listing of Claims:

1. (Original) A method of treating mesothelioma or diffuse large B-cell lymphoma in a subject, said method comprising the step of administering to the subject an effective amount of a pharmaceutical composition comprising a histone deacetylase (HDAC) inhibitor, or a pharmaceutically acceptable salt or hydrate thereof, and a pharmaceutically acceptable carrier or diluent, wherein the amount of histone deacetylase inhibitor is effective to treat said mesothelioma or diffuse large B-cell lymphoma in said subject.

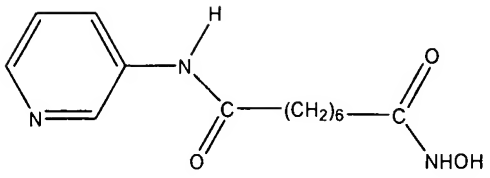
2. (Original) The method of claim 1, wherein the method is used to treat mesothelioma in said subject.

3. (Original) The method of claim 1, wherein the method is used to treat diffuse large B-cell lymphoma in said subject.

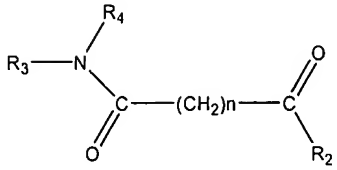
4. (Original) The method of claim 1, wherein the HDAC inhibitor is suberoylanilide hydroxamic acid (SAHA), represented by the structure:



5. (Original) The method of claim 1, wherein the HDAC inhibitor is pyroxamide, represented by the structure:

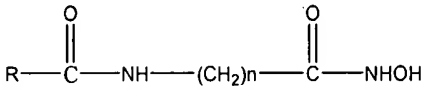


6. (Original) The method of claim 1, wherein the HDAC inhibitor is represented by the structure:



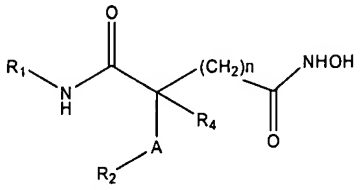
wherein R_3 and R_4 are independently a substituted or unsubstituted, branched or unbranched alkyl, alkenyl, cycloalkyl, aryl, alkyloxy, aryloxy, arylalkyloxy, or pyridine group, cycloalkyl, aryl, aryloxy, arylalkyloxy, or pyridine group, or R_3 and R_4 bond together to form a piperidine group; R_2 is a hydroxylamino group; and n is an integer from 5 to 8.

7. (Original) The method of claim 1, wherein the HDAC inhibitor is represented by the structure:



wherein R is a substituted or unsubstituted phenyl, piperidine, thiazole, 2-pyridine, 3-pyridine or 4-pyridine and n is an integer from 4 to 8.

8. (Original) The method of claim 1, wherein the HDAC inhibitor is represented by the structure:



wherein A is an amide moiety, R_1 and R_2 are each selected from substituted or unsubstituted aryl, arylalkyl, naphthyl, pyridineamino, 9-purine-6-amino, thiazoleamino, aryloxy, arylalkyloxy,

pyridyl, quinolinyl or isoquinolinyl; R4 is hydrogen, a halogen, a phenyl or a cycloalkyl moiety and n is an integer from 3 to 10.

9. (Original) The method of claim 1, wherein said HDAC inhibitor is a hydroxamic acid derivative, a Short Chain Fatty Acid (SCFA), a cyclic tetrapeptide, a benzamide derivative, or an electrophilic ketone derivative.

10. (Original) The method of claim 1, wherein said HDAC inhibitor is a hydroxamic acid derivative selected from the group consisting of SAHA, Pyroxamide, CBHA, Trichostatin A (TSA), Trichostatin C, Salicylhydroxamic Acid, Azelaic Bishydroxamic Acid (ABHA), Azelaic-1-Hydroxamate-9-Anilide (AAHA), 6-(3-Chlorophenylureido) carpoic Hydroxamic Acid (3Cl-UCHA), Oxamflatin, A-161906, Scriptaid, PXD-101, LAQ-824, CHAP, MW2796, and MW2996.

11. (Original) The method of claim 1, wherein said HDAC inhibitor is a cyclic tetrapeptide selected from the group consisting of Trapoxin A, FR901228 (FK 228 or Depsipeptide), FR225497, Apicidin, CHAP, HC-Toxin, WF27082, and Chlamydocin.

12. (Original) The method of claim 1, wherein said HDAC inhibitor is a Short Chain Fatty Acid (SCFA) selected from the group consisting of Sodium Butyrate, Isovalerate, Valerate, 4 Phenylbutyrate (4-PBA), Phenylbutyrate (PB), Propionate, Butyramide, Isobutyramide, Phenylacetate, 3-Bromopropionate, Tributyrin, Valproic Acid and Valproate.

13. (Original) The method of claim 1, wherein said HDAC inhibitor is a benzamide derivative selected from the group consisting of CI-994, MS-27-275 (MS-275) and a 3'-amino derivative of MS-27-275.

14. (Original) The method according to claim 1, wherein said HDAC inhibitor is an electrophilic ketone derivative selected from the group consisting of a trifluoromethyl ketone and an α-keto amide.

15. (Original) The method according to claim 1, wherein said HDAC inhibitor is a natural product, a psammaplin, or Depudecin.

16. (Original) The method of claim 1, wherein the pharmaceutical composition is administered orally.

17. (Original) The method of claim 16, wherein said composition is contained within a gelatin capsule.

18. (Original) The method of claim 17, wherein said carrier or diluent is microcrystalline cellulose.

19. (Original) The method of claim 18, further comprising sodium croscarmellose as a disintegrating agent.

20. (Original) The method of claim 19, further comprising magnesium stearate as a lubricant.

21. – 68. (Cancelled).